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TORPEDOES

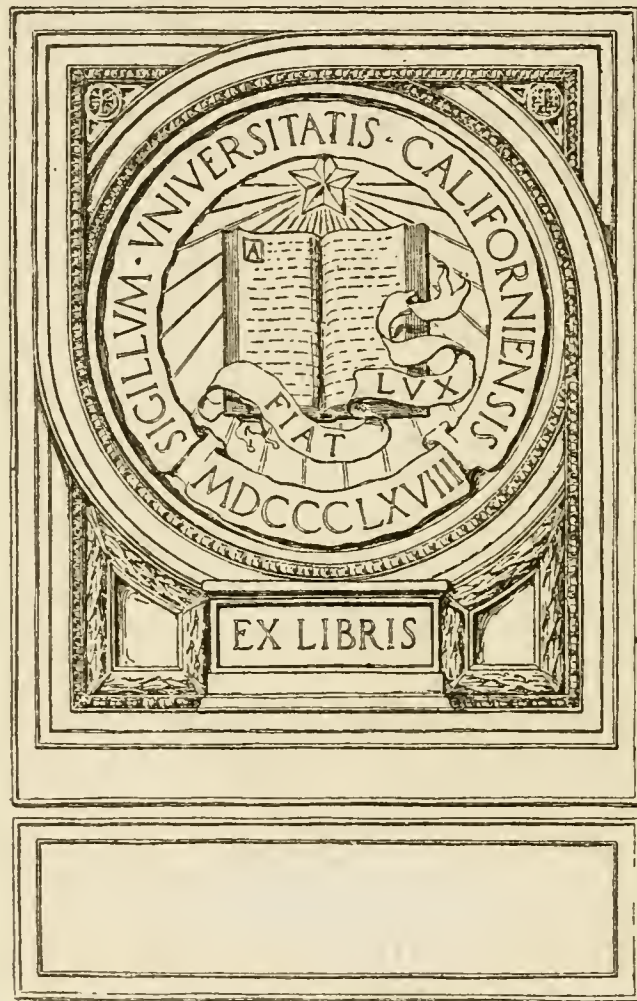
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TORPEDOES

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TORPEDOES

A LIST OF REFERENCES TO MATERIAL IN THE NEW YORK PUBLIC LIBRARY

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GENERAL

1. **Harvey torpedo.** (Engineering, London, v. 9, 1870, p. 180, 241; v. 11, 1871, p. 35-36, 124; v. 13, 1872, p. 352, 412; v. 14, 1872, p. 262; v. 24, 1877, p. 391-392.) **VDA**

Invention of John Harvey.

2. **The Lay torpedo.** (Army and navy journal, New York, v. 13, 1875, p. 182, 293, 595, 610, 674; v. 14, 1876, p. 766, 783, 802; v. 15, 1877, p. 15; v. 16, 1879, p. 657; v. 20, 1883, p. 737, 995; v. 25, 1887, p. 697.)

†† **VWA**

3. **Notes on torpedoes.** (Army and navy journal, New York, v. 7, 1869-70, p. 261, 325, 560, 628-629, 733; v. 8, 1870, p. 94; v. 9, 1871-72, p. 82, 106, 817; v. 10, 1872-73, p. 110, 537, 654, 730, 802, 811; v. 11, 1873-74, p. 126, 206, 222, 230, 254, 297, 313, 342, 358, 392, 446, 456-457, 505, 523; v. 12, 1874-75, p. 200, 284, 473, 506; v. 14, 1876-77, p. 283, 799, 823; v. 15, 1877, p. 254, 285, 327; v. 16, 1878, p. 86, 87, 103; v. 19, 1882, p. 501; v. 20, 1882-83, p. 263, 873; v. 21, 1884, p. 813; v. 23, 1886, p. 500, 619, 682, 873, 1015; v. 24, 1886, p. 75, 440; v. 25, 1888, p. 515; v. 28, 1891, p. 754, 875; v. 29, 1891-92, p. 254, 434, 477, 513; v. 30, 1893, p. 545; v. 31, 1893, p. 43; v. 32, 1894-95, p. 85, 115, 162, 207, 405; v. 33, 1896, p. 657; v. 36, 1899, p. 449; v. 41, 1904, p. 775, 1071; v. 42, 1904-05, p. 128, 256, 392, 477, 771, 1267, 1327; v. 43, 1905, p. 147; v. 45, 1908, p. 996; v. 46, 1908-09, p. 140, 572, 583; v. 48, 1910-11, p. 119, 187, 1512; v. 50, 1913, p. 1309; v. 52, 1914-15, p. 263, 364, 427, 776, 871, 1133, 1229, 1361, 1393, 1624, 1649.)

†† **VWA**

4. **Notes on torpedoes.** (Engineer, London, v. 45, 1878, p. 171, 402; v. 84, 1897, p. 423; v. 95, 1903, p. 40, 471; v. 105, 1908, p. 665; v. 107, 1909, p. 428; v. 109, 1910, p. 40, 66, 196, 348, 472, 573; v. 110, p. 197.) **VA**

5. **Notes on torpedoes.** (Engineering, London, v. 8, 1869, p. 227; v. 10, 1870, p. 286, 473; v. 11, 1871, p. 321, 394, 463; v. 12, 1871, p. 30, 114, 155, 322; v. 14, 1872, p. 34, 366; v. 17, 1874, p. 114, 400, 447; v. 25, 1878, p. 64, 179, 388; v. 28, 1879, p. 36, 177; v. 29, 1880; p. 127, 498; v. 30, 1880, p. 272, 296, 322; v. 31, 1881, p. 434, 486; v. 33, 1882, p. 142, 218, 297; v. 36, 1883, p. 92, 543; v. 43, 1887, p. 234,

369; v. 50, 1890, p. 532; v. 51, 1891, p. 344; v. 55, 1893, p. 165, 223, 625; v. 70, 1900, p. 5; v. 74, 1902, p. 147, 610, 674; v. 76, 1903, p. 353.)

VDA

6. **Notes on torpedoes.** (Institution of Naval Architects, Transactions, London, v. 13, 1872, p. 42, 258; v. 23, 1882, p. 9; v. 29, 1888, p. 184-187, 191; v. 32, 1891, p. 12, 21, 30-31; v. 36, 1895, p. 183; v. 52, 1910, p. 7.)

VXA

7. **Notes on torpedoes.** (Marine engineer, London, v. 10, 1888, p. 203; v. 13, 1891, p. 447; v. 17, 1895, p. 197; v. 18, 1896, p. 205; v. 19, 1897, p. 14, 96, 223; v. 20, 1898, p. 68; v. 24, 1903, p. 433; v. 25, 1903, p. 330; v. 26, 1904, p. 256; v. 31, 1908, p. 39.)

VXA

8. **Notes on torpedoes.** (Scientific American, New York, v. 10, 1863, p. 362; v. 50, 1884, p. 49; v. 52, p. 276; v. 53, p. 19, 50, 149, 342; v. 54, p. 73, 117, 166; v. 55, p. 48, 88, 280, 336-337, 387; v. 56, p. 25, 185, 309, 370, 389; v. 57, p. 114; v. 58, p. 2, 33, 243, 376; v. 59, p. 311, 358; v. 60, p. 183, 228, 324; v. 61, p. 32, 102, 135, 178; v. 62, p. 182, 185; v. 64, p. 9, 374; v. 65, p. 161-162, 273; v. 66, p. 147, 164, 184; v. 67, p. 323; v. 68, p. 23, 262; v. 69, p. 137, 261, 323, 354-355, 387; v. 70, p. 21, 230; v. 71, p. 44, 164, 213, 263, 310, 354, 375-376; v. 72, p. 108, 178, 184, 251, 261; v. 73, p. 185, 364, 377; v. 74, p. 83; v. 76, 1897, p. 99; v. 77, 1897, p. 376; v. 79, 1898, p. 76, 211; v. 80, 1899, p. 92, 244-245; v. 81, 1899, p. 358; v. 82, 1900, p. 35, 151, 247; v. 83, 1900, p. 52, 151, 194, 244; v. 85, 1901, p. 119, 166; v. 86, 1902, p. 60, 84, 94, 204; v. 87, 1902, p. 124, 290, 443; v. 88, 1903, p. 238, 374; v. 89, 1903, p. 190; v. 90, 1904, p. 40, 271; v. 91, 1904, p. 244, 461; v. 94, 1906, p. 286; v. 97, 1907, p. 413; v. 101, 1909, p. 313; v. 109, 1913, p. 278; v. 112, 1915, p. 117; v. 114, 1916, p. 95, 575.)

VA

9. **Notes on torpedoes.** (Scientific American supplement, New York, v. 1, 1876, p. 453; v. 6, 1878, p. 2193, 2208-2209, 2223, 2301, 2462.)

VA

10. **Notes on torpedoes.** (United States Naval Institute, Proceedings, Annapolis, v. 27, 1901, p. 436-437, 839-840; v. 28, 1902, p. 162-163, 439; v. 30, 1904, p. 882-883; v. 31, 1905, p. 727-730, 1014; v. 32, 1906, p. 1606-

General, continued.

1607; v. 33, 1907, p. 418, 875-876; v. 34, 1908, p. 1338; v. 35, 1909, p. 309, 985; v. 36, 1910, p. 625, 903; v. 38, 1912, p. 345; v. 39, 1913, p. 395, 872, 1357; v. 40, 1914, p. 1192, 1508, 1821; v. 42, 1916, p. 268, 967.) **VXA**

11. **Torpedo experiments.** (Engineering, London, v. 18, 1875, p. 126, 165, 269, 439; v. 19, 1876, p. 214, 354, 500; v. 21, 1878, p. 185; v. 22, 1879, p. 367-368; v. 29, 1886, p. 462; v. 32, 1889, p. 93-94, 116; v. 39, 1896, p. 143-145, 636; v. 40, 1897, p. 258, 475; v. 41, 1898, p. 256; v. 42, 1899, p. 478.) **VDA**

12. **Torpedo experiments in England.** (Army and navy journal, New York, v. 12, 1874-75, p. 41, 104, 110, 186, 206, 265, 270-271, 318, 327, 334, 715-716; v. 13, 1875-76, p. 22, 30, 755; v. 14, 1877, p. 383; v. 15, 1877-78, p. 79, 546; v. 17, 1879, p. 266; v. 19, 1881, p. 35; v. 20, 1882, p. 979; v. 24, 1887, p. 925, 939-940; v. 25, 1888, p. 905.) †† **VWA**

13. **Torpedo experiments and practice (United States).** (Army and navy journal, New York, v. 11, 1873, p. 30, 167, 375; v. 12, 1874, p. 23, 58-59; v. 13, 1875, p. 74; v. 15, 1877, p. 135; v. 16, 1878, p. 7, 253; v. 20, 1882, p. 422; v. 24, 1886, p. 156; v. 49, 1911-12, p. 43, 1599; v. 52, 1914-15, p. 265, 1002, 1532.) †† **VWA**

14. **Torpedoes or submarine explosive instruments.** (Engineer, London, v. 22, 1866, p. 168; v. 23, 1867, p. 242; v. 31, 1871, p. 49; v. 34, 1872, p. 78.) **VA**

Invention of C. A. McEvoy of London.

15. **The Whitehead torpedo.** (Army and navy journal, New York, v. 13, 1876, p. 650, 679, 746; v. 14, 1876, p. 142; v. 15, 1877, p. 79, 299; v. 17, 1879, p. 143, 586, 607; v. 18, 1881, p. 747, 774, 1077; v. 21, 1883, p. 341.) †† **VWA**

1630

16. **Hanzelet, Jean Appier, called.** *La pyrotechnie de Hanzelet, Lorrain, ou sont representez les plus rares & plus appreneuez secrets des machines & des feux artificiels. Propres pour assieger battre surprendre & deffendre toutes places.* Pont à Mousson: I. & Gaspard Bernard, 1630. 4 p.l., 264 p. 8°. **VOG**

This work contains interesting data on floating and land mines, bombs, rockets, and artificial fire for lighting battlefields, etc.

1641

17. **Collado, Luys.** *Prattica manvale dell' artigliera. Opera historica, politica, e militare.* Milano: Filippo Ghisolfi & Gio. Battista Bidelli, 1641. 8 p.l., 328 p. illus. 4°. † **VWW**

1644

18. **Mersenne, Marin.** *De natibus sub aqua natantibus.* (In his: F. Marini Mersenni Minimi cogitata physico mathematica, in quibus tam naturæ quam artis effectus admirandi certissimis demonstrationibus explicantur, Paris, 1644 [part 1], p. 207-208.) **OKC**

The author gives Cornelis Jacobsz Drebbel the credit of inventing the submarine.

1648

19. **Wilkins, John.** *Mathematicall magick. Or, The vvonders that may be performed by mechanicall geometry.* London: printed by M. F. for S. Gellibrand, 1648. 7 p.l., 295 p. illus. 16°. **PBC**

Concerning the possibility of framing an ark for submarine navigations. The difficulties and conveniences of such a contrivance, p. 178-190.

1650

20. **Siemienowicz, Kazimierz.** *Artis magnæ artilleriæ. Pars prima...* Amsterodami: apud Joannem Janssonivm, 1650. 8 p.l., 284 p., 2 l., 22 pl. f°. † **VOG**

Gives data on bombs, rockets, and floating mines.

1676

21. **Binning, Thomas.** *A light to the art of gunnery... either in sea or land-service ...* London: printed by J. D. for W. Fisher and R. Mount, 1676. 8 p.l., 3-172 p., 4 charts, 3 pl. 4°. **VWW**

Gives receipts for making petards, grenades, fire arrows, rockets, fire trunks, fire barrels, and mines; also receipts for the illumination of trenches and battlefields.

1699

22. **Fernandez de Medrano, Sebastian.** *El perfecto artificial, bombardero y artillero, que contiene los artificios de fuegos marciales, nuevo uzo de bombas, granadas, y practica de la artilleria, y mosquete, &c.* Brusselas: L. Marchant, 1699. 8 p.l., 196 p., 2 l., 10 pl. 16° in eights. **VOG**

Notes on bombs, rockets, and grenades.

1745

23. **Orval, Perrinet d'.** *Essay sur les feux d'artifice pour le spectacle et pour la guerre.* Par Mr. P. d'O. [i. e., Perrinet d'Orval,] Paris, 1745. xii p., 2 l., 224 p., 13 pl. 12° in eights. **VOG**

Notes on rockets and mines.

1762

24. *La Machine infernale*. (Recueil de planches, sur les sciences, les arts libéraux, et les arts mécaniques, avec leur explication, Paris, 1762, v. 1, Art militaire, Fortification, planche 11, fig. 6.) †† * AP

1764

25. *Bélicor*, Bernard Forest de. Oeuvres diverses de M. Belidor, concernant l'artillerie et le génie. Amsterdam: Arkstée & Merkus, 1764. 1 p.l., xxxix, 396 p., 7 pl. 8°. VWW

For descriptions of mines see p. 94-191, 320-391; for descriptions of bombs, p. 238-319.

1776

26. *Bélicor*, Bernard Forest de. M. Belidor's new method of mining. (In: Robert Jones, Artificial fireworks, London, 1776, p. 157-178.) VOG

27. Jones, Robert. Artificial fireworks, improved to the modern practice, from the minutest to the highest branches... Also, Mr. Muller's Fireworks, for sea and land service... London: J. Millan, 1776. 3 p.l., 193 p., 8 pl. 2. ed. 8°. VOG

28. *Vallière*, Jean Florent, marquis de. Dissertation on mines, and their advantages in the defence of places. (In: Robert Jones, Artificial fireworks, London, 1776, p. 178-186.) VOG

18 — ?

29. *Torka*, Johann. [Seeminen.] (In his: Die Wunder der Technik, Berlin [18—?], p. 446, 451.) V

30. — [Torpedos.] (In his: Die Wunder der Technik, Berlin [18—?], p. 450-460.) V

1810

31. *Fulton*, Robert. Torpedo war, and submarine explosions. New York: printed by William Elliot, 1810. 57(1) p., 1 l., 5 pl. ob. 8°. Reserve

32. — — New York: printed by W. Eliot, 1810. New York: Reprinted, W. Abbatt, 1914. 55 p., 5 pl. 4°. (Magazine of history with notes and queries. Extra number. no. 35.) IAG (Magazine)

The original pamphlet was reviewed in the *Proceedings* of the United States Naval Institute, Annapolis, Md., v. 12, 1886, p. 252-254, VXA.

33. *Sur les moyens proposés par Robert Fulton, pour la destruction des vaisseaux de guerre et la défense des ports et des rades*. illus. (Société d'encouragement pour l'industrie nationale, Bulletin, Paris, année 9, 1810, p. 170-182.) VA

Detailed description of Fulton's torpedo.

33a. Use of the torpedo in the defence of ports and harbors; communicated to the Senate, February 26, 1810. 11th Congress, 2d session. illus. (In: American state papers, Washington, 1834, v. 14, Naval affairs, v. 1, p. 211-226.) * SBE

1811

33b. Experiments on the practical use of the torpedo, communicated to the House of Representatives, February 14, 1811. 11th Congress, 3d session. illus. (In: American state papers, Washington, 1834, v. 14, Naval affairs, v. 1, p. 234-244.) * SBE

1820

34. *Griswold*, Charles. Submarine navigation. (American journal of science and arts, New Haven, v. 2, 1820, p. 94-100.) OA

Gives account of David Bushnell's submarine or torpedo and the attack on the British fleet in New York harbor, August, 1776, by Ezra Lee.

1825

35. *Cutbush*, James. Of the American turtle. (In his: System of pyrotechny, Philadelphia, 1825, p. 515-521.) VOG

Gives a very interesting account of David Bushnell's submarine or torpedo and the attack on the British fleet in New York harbor in August, 1776.

36. — Of the combustible substances used in, and the manner of preparing a fire-ship. (In his: System of pyrotechny, Philadelphia, 1825, p. 507-512.) VOG

37. — Of the torpedo. Of the marine incendiary kegs, etc. (In his: System of pyrotechny, Philadelphia, 1825, p. 521-525.) VOG

Notes on Fulton's torpedo. Attempt of a Mr. Mix to destroy the "Plantagenet" in Lynnhaven harbor in July, 1813; also attempt of a Mr. Penny of Easthampton, Long Island, to destroy a British battleship.

38. *Montgéry*, de. Notice sur la vie et les travaux de Robert Fulton. Paris: Bachelier, 1825. 1 p.l., 70 p. 8°. AN p.v.26, no.19

Includes notes on torpedoes.

39. — *Traité des fusées de guerre, nommées autrefois rochettes et maintenant fusées à la Congrève*. Paris: Bachelier, 1825. 2 p.l., 364 p., 6 diagsr. 8°. VWS

Gives data on submarines and torpedoes.

1825, *continued.*

40. **Worcester** (2. marquis), Edward Somersct. [Torpedoes.] (In his: *The century of inventions of the marquis of Worcester*, London, 1825, p. 12-14.) **V**

Description of a bomb or torpedo for sinking ships; also methods of protecting ships from torpedoes.

1840

41. **Memorial** of a committee of the military convention at Norwich, Vermont, praying the revision and alteration of the system of the military defences of the United States. Feb. 24, 1840. [Washington, 1840.] 26 p. 8°. (U. S. 26. cong., 1. sess. Sen. doc. 238; serial 358.) ***SBE**

This memorial prepared by Captain Alden Partridge, president of Norwich University, gives valuable suggestions for the training of the "citizen soldiery" applicable at this time; also data on the use of the fireship and of Greek fire; also an interesting description of the fireship invented by Uriah Brown. The proposed ship, seventy-five feet long, was to be so constructed as to float low in the water. Its sides and decks were to be protected by heavy iron plates set at such angles that no shot fired at it could strike at a greater angle than 15 degrees, thus causing the shots to ricochet without penetrating the deck or sides. The chief use of the boat was the firing of a liquid composition through tubes passing through orifices in the deck which on coming in contact with the air would instantly take fire.

1862

42. **Collier**, Francis J. **Magnetic torpedoes.** (Scientific American, New York, new series, v. 6, 1862, p. 230.) **VA**

Brief note.

43. **Holman**, H. R. **Harbor defence-torpedoes.** (Scientific American, New York, new series, v. 6, 1862, p. 38.) **VA**

Brief note.

44. **Submarine infernal machine.** illus. (Scientific American, New York, new series, v. 5, 1862, p. 101.) **VA**

Torpedo work on the Potomac river.

45. **Submarine torpedoes—infernal machines.** illus. (Scientific American, New York, new series, v. 6, 1862, p. 164-165.) **VA**

Notes on the work of Robert Fulton and Lord Cochrane.

1863

46. **Demijohn torpedoes.** (Scientific American, New York, new series, v. 8, 1863, p. 19.) **VA**

Abstracted from the *Pittsburgh dispatch*.

47. **Destruction** of the U. S. S. "Housatonic" by a torpedo. (Scientific American, New York, new series, v. 10, 1863, p. 165.) **VA**

48. **Explosion** of a submarine torpedo. (Scientific American, New York, new series, v. 8, 1863, p. 7.) **VA**

Destruction of the U. S. S. Cairo, Dec. 11, 1862.

49. The "**Monitor**" torpedo. (Scientific American, New York, new series, v. 9, 1863, p. 56.) **VA**

50. A **New rebel torpedo.** illus. (Scientific American, new series, v. 9, 1863, p. 388.) **VA**

Report of William N. Jeffers on test.

51. The **New torpedo** in Charleston harbor. illus. (Scientific American, New York, new series, v. 9, 1863, p. 164, 229.) **VA**

1864

52. **Doty.** On the torpedoes used by the Confederate States in the destruction of some of the Federal ships of war, and the mode of attaching them to the rams. (British Association for the Advancement of Science, Report, Bath, 1864, Notices and abstracts, p. 185-186.) ***EC**

Also abstracted in *Army and navy journal*, New York, v. 2, 1864, p. 138-139, †† *VWA*.

53. **Experiment** with torpedoes. (Engineer, London, v. 18, 1864, p. 146.) **VA**

Experiment in the Scheldt near Antwerp.

54. **New rebel torpedo.** illus. (Scientific American, New York, new series, v. 11, 1864, p. 228.) **VA**

55. **New torpedo.** illus. (Engineer, London, v. 18, 1864, p. 254.) **VA**

Invention made at Richmond, Va. Abstracted from *Scientific American*.

56. The **Rebel torpedoes.** illus. (Scientific American, New York, new series, v. 10, 1864, p. 390.) **VA**

57. **Torpedo planting** by the Confederates. (Army and navy journal, New York, v. 1, 1864, p. 653.) †† **VWA**

58. **Torpedoes.** (Engineer, London, v. 18, 1864, p. 194.) **VA**

Notes on invention used in Confederate navy.

59. **Torpedoes** used by the rebels. illus. (Scientific American, New York, new series, v. 11, 1864, p. 21.) **VA**

1865

47. **Destruction** of the U. S. S. "Housatonic" by a torpedo. (Scientific American, New York, new series, v. 10, 1863, p. 165.) **VA**

60. **American torpedoes** in England. (Scientific American, New York, new series, v. 13, 1865, p. 350.) **VA**

Invention of W. Beardslee.

1865, *continued.*

61. **Comstock, C. B.** [Use of land torpedoes by the Confederates at Fort Fisher.] illus. (War of the rebellion: a compilation of the official records of the Union and Confederate armies, Washington, 1895, series 1, v. 46, part 2, p. 215-217.) **IKC**

Letter to General R. Delafield.

62. **The Electrical torpedo.** (Scientific American, New York, new series, v. 13, 1865, p. 113.) **VA**

Note on the work of Nathaniel J. Holmes in England.

63. **A New torpedo.** (Engineer, London, v. 19, 1865, p. 253.) **VA**

Brief note on invention by a Swedish engineer.

64. **Rye, William Brenchley.** England as seen by foreigners in the days of Elizabeth and James the First. Comprising translations of the journals of the two dukes of Wirtemberg in 1592 and 1610. London: J. R. Smith, 1865. cxxxii p., 1 l., 3-300 p., 5 pl., 2 ports. 8°. **CN**

Has a reference to Cornelius Drebbel on p. 61, and an extensive biographical account of his activities on p. 232-242.

65. **Torpedo invented by Donald McKay.** (Army and navy journal, New York, v. 3, 1865, p. 89.) †† **VWA**

66. **Torpedo invented by G. Davies, London.** (Engineer, London, v. 19, 1865, p. 159.) **VA**

67. **The Torpedo ship.** (Scientific American, New York, new series, v. 12, 1865, p. 39.) **VA**

Brief note.

68. **Torpedoes.** (Army and navy journal, New York, v. 3, 1865, p. 728-729.) †† **VWA**

A new type of torpedo used in France.

1866

69. **History of a torpedo boat.** (Army and navy journal, New York, v. 3, 1866, p. 562; v. 4, 1866, p. 18.) †† **VWA**

Note on Confederate boat constructed at Mobile.

70. **Holmes, N. J.** Torpedo defences. (Royal United Service Institution, Journal, London, v. 10, 1866, p. 402-414.) **VWA**

With discussion, p. 414-416.

Gives valuable historical notes on torpedo warfare during the Civil war; also the development of the torpedo.

71. **A New torpedo.** illus. (Engineer, London, v. 22, 1866, p. 422.) **VA**

Invention of Mr. M. Nebol of New York.

72. **Torpedo boats for harbor defence.** (Army and navy journal, New York, v. 3, 1866, p. 457.) †† **VWA**

73. **Torpedo experiments in England.** (Scientific American, New York, new series, v. 14, 1866, p. 407-408.) **VA**

74. **Torpedoes.** (Engineering, London, v. 1, 1866, p. 333-334.) **VDA**

Notes on the work of Holmes and Maury.

75. **Torpedoes for war.** (Engineer, London, v. 21, 1866, p. 368.) **VA**

Notes on invention of H. J. Holmes and Lieut. Maury.

76. **Vauvert, Maxime.** Toulon.— Expérience de torpilles. illus. (Le monde illustré, Paris, v. 18, 1866, p. 196-197.) * **DM**

1868

77. **Nouvelles torpilles.** (Cosmos, Paris, série 2, v. 3, 1868, p. 27.) **VA**

78. **Torpedoes.** illus. (Engineer, London, v. 25, 1868, p. 1-2, 19-20, 35.) **VA**

Notes on torpedoes at the International Exhibition, Paris; Austrian torpedoes; experiments by Mallet, N. J. Holmes, Baron d'Ebner; the toposcope.

79. **Torpedoes in France.** (Engineer, London, v. 25, 1868, p. 260.) **VA**

1869

80. **Gilmore, Arthur H.** Anti-torpedo vessel. (Royal United Service Institution, Journal, London, v. 13, 1869, p. 33.) **VWA**

81. **Hamilton, John Randolph.** The American navy; its organization, ships, armaments and recent experiences. (Royal United Service Institution, Journal, London, v. 12, 1869, p. 243-271.) **VWA**

Valuable data on the use of torpedoes during the Civil war.

82. **Jervois, W. F. Drummond.** Coast defences, and the application of iron to fortification. illus. (Royal United Service Institution, Journal, London, v. 12, 1869, p. 548-569.) **VWA**

Notes on torpedoes and submarine mines.

83. **Patents on torpedoes issued to Frederick N. Gisborne of London.** (Engineer, London, v. 27, 1869, p. 58; v. 28, 1869, p. 44.) **VA**

84. **Torpedoes.** (Van Nostrand's engineering magazine, New York, v. 1, 1869, p. 632-635.) **VDA**

From *Pall Mall gazette.*

85. **Torpedoes in war.** (Army and navy journal, New York, v. 6, 1868, p. 35, 534, 600, 788.) †† **VWA**

1870

86. The **Austrian** torpedo. (Van Nostrand's engineering magazine, New York, v. 2, 1870, p. 325-326.) **VDA**
87. **Captain Harvey's** torpedo. (Van Nostrand's engineering magazine, New York, v. 3, 1870, p. 657-658.) **VDA**
88. **Fishing up** torpedoes. (Engineer, London, v. 30, 1870, p. 343.) **VA**
Plan proposed by C. W. Merrifield.
89. **Harvey** torpedo. (Engineering, London, v. 9, 1870, p. 180, 241.) **VDA**
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90. **Harvey's** Seetorpedo. (Dingler's polytechnisches Journal, Augsburg, Bd. 197, 1870, p. 127-129.) **VA**
91. The **Torpedo**. (Army and navy journal, New York, v. 7, 1870, p. 564.) †† **VWA**
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92. **Torpedo war**. (Engineering, London, v. 9, 1870, p. 25-26.) **VDA**
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93. **Torpedoes**. (Engineer, London, v. 30, 1870, p. 72.) **VA**
Experiments made at Plymouth, Eng., by Admiral Sir H. Codrington.

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94. **Beal, S.** Description of a Chinese torpedo. (Royal United Service Institution, Journal, London, v. 15, 1871, p. 728-730.) **VWA**
Invention of John Lewis, an American.
95. **Braham, Philip.** Working torpedoes. illus. (Engineering, London, v. 12, 1871, p. 89.) **VDA**
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96. **Callender, M. L.** Floating marine torpedoes. illus. (Van Nostrand's engineering magazine, New York, v. 4, 1871, p. 237-240.) **VDA**
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97. **Electrically** exploding torpedoes. (American artisan, New York, v. 12, 1871, p. 344.) **VA**
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98. **Ericsson's** torpedo. (Army and navy journal, New York, v. 9, 1871, p. 339, 371.) †† **VWA**
99. The **Fish** torpedo. (Engineer, London, v. 32, 1871, p. 381.) **VA**
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100. **Fuses** for torpedoes. illus. (Engineer, London, v. 31, 1871, p. 46.) **VA**
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101. **Harvey, Frederick.** Instructions for the management of Harvey's sea torpedo. London: E. & F. N. Spon, 1871. 43 p., 13 pl. 8°. **VWS**
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Letters stating that on Oct. 20, 1860 he suggested the employment of electricity for the guiding of "explosive vessels."
103. **Self-propelling** submerged torpedoes. (Engineer, London, v. 31, 1871, p. 258, 328.) **VA**
Patents issued to George W. Rendel.
104. **Stotherd, Richard Hugh.** Defensive submarine warfare. (Royal United Service Institution, Journal, London, v. 15, 1871, p. 705-733.) **VWA**
Gives historical notes on torpedoes and their use during the Civil war.
105. A **Torpedo** cruise. (Army and navy journal, New York, v. 9, 1871-72, p. 30, 399, 737.) †† **VWA**
Experiments with the Harvey torpedo. From the *London Broad Arrow*.
106. **Torpedo** experiments. (Army and navy journal, New York, v. 9, 1871, p. 106.) †† **VWA**
Experiments conducted by Gen. Humphreys.
107. **Torpedoes**. (Engineer, London, v. 32, 1871, p. 223, 408, 424.) **VA**
Letters by J. Haddan, Philip Braham, A. Alexander and Geo. Warsop.
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108. **Torpedoes**. (Van Nostrand's engineering magazine, New York, v. 4, 1871, p. 107-108.) **VDA**
109. **Torpedoes** in oil wells. (Engineer, London, v. 31, 1871, p. 411.) **VA**
Invention of a Mr. Roberts in Pittsburgh. Abstracted from the *Scientific American*.
110. **Weir, Robert.** Submarine torpedoes. (Van Nostrand's engineering magazine, New York, v. 4, 1871, p. 128-132.) **VDA**
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Notes on use of torpedoes in Civil war. Use of the "invisible shell," by Capt. Warner in 1844.

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113. **Kirkland**, William A. The rival torpedoes. (Army and navy journal, New York, v. 10, 1872, p. 314-315, 363, 406-408, 426.) †† VWA

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114. **Magneto-electric** torpedo firer. (Engineer, London, v. 34, 1872, p. 69.) VA

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Correspondence between A. Alexander and A. M. regarding the assertion that General Paixhan proposed over fifty years previously to sink ships by submarine shell rockets.

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127. **Ericsson's** aggressive torpedo. (Army and navy journal, New York, v. 10, 1873, p. 732-733; v. 11, 1873, p. 56.) †† VWA

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143. **Hawksley, George.** Torpedoes. (Engineer, London, v. 37, 1874, p. 237.) VA
Letter outlining his invention of Sept. 2, 1860.
144. **Hennebert, Eugène.** Les torpilles, par le major H. de Sarrepont (pseud.). Paris: J. Dumaine, 1874. xii, 320 p. illus. 8°. VXV
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146. **Merrell, John P.** Lecture on galvanic batteries and electrical machines, as used in torpedo operations, arranged in three parts. Newport, R. I.: U. S. Torpedo Station, 1874-75. 3 parts. 8°. (United States.— Ordnance Bureau, Navy Department.)
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147. **The Torpedo** attack on the Oberon at Stokes bay. illus. (Engineer, London, v. 38, 1874, p. 133-134, 152, 176, 185, 232, 271-272.) VA
A series of experiments.
148. **A Torpedo** detector. (Engineer, London, v. 37, 1874, p. 148.) VA
Notes on the Wilde electro-magnetic induction machine.
149. **A Torpedo** detector. (Van Nostrand's eclectic engineering magazine, New York, v. 10, 1874, p. 536-538.) VDA
150. **Torpedo** explosions at Woolwich. (Engineer, London, v. 37, 1874, p. 85, 139, 209.) VA
151. **Torpedoes** a century old. (Army and navy journal, New York, v. 11, 1874, p. 426.) †† VWA
Also printed in *Engineer*, London, v. 37, 1874, p. 174, VA.
Invention of John Cross of London, who about 1776 proposed a plan "to keep off all troublesome enemies, who dare presume to disturb their peace" and to end the American Revolution.
152. **The Whitehead** torpedo. (Engineer, London, v. 37, 1874, p. 141.) VA
Series of experiments.

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153. **Abbot, Henry Larcom.** Notes on electricity, in its applications to submarine mining. (New York: Battalion Press, 1875-76. 2 p.l., ii-iii, 123 l., 13 pl. 8°. VXV
Proof ed. At head of title: Confidential.
154. **American** torpedo vessel. (Engineer, London, v. 39, 1875, p. 420.) VA
Brief note on the "Alarm."
155. **Barber, Francis M.** Lecture on submarine boats, and their application to torpedo operations. Newport, R. I.: U. S. Torpedo Station, 1875. 39(1) p., 8 diagr. 8°. (United States.— Ordnance Bureau, Navy Department.)
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157. **Dawson, W.** Offensive torpedo warfare. (Royal United Service Institution, Journal, London, v. 15, 1875, p. 86-91.) VWA
Valuable notes on the use of torpedoes during the Civil war.
158. **High speed** torpedo launch built by Yarrow & Hedley. (Engineer, London, v. 39, 1875, p. 100.) VA
159. **Hill, Walter N.** Notes on explosives, and their application in torpedo warfare. Newport, R. I.: U. S. Torpedo Station, 1875. 60 p., 2 diagr. 8°. (United States.— Ordnance Bureau, Navy Department.)
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160. **Lindsay, Charles.** Plan for protecting ships (at anchor), blockading a port from attacks by outrigger Whitehead, or Harvey torpedoes. (Royal United Service Institution, Journal, London, v. 19, 1875, p. 527-531.) VWA

1875, continued.

161. **Maritime** attack by torpedoes. (Engineer, London, v. 39, 1875, p. 370-371.) **VA**

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162. A **Monster** torpedo. (Engineer, London, v. 39, 1875, p. 178.) **VA**

Brief note on experiments at Toulon.

163. **Navigating** torpedoes. (Manufacturer and builder, New York, v. 7, 1875, p. 219.) **VA**

Invention of Denayrouse.

164. The **Oberon** submarine mine experiments. illus. (Engineer, London, v. 39, 1875, p. 361.) **VA**

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165. **Submarine** boats. Engineer, London, v. 40, 1875, p. 157.) **VA**

Gives data on torpedoes.

166. **Torpedo** ship "Vesuvius." illus. (Engineering, London, v. 19, 1875, p. 375-376.) **VA**

167. **Woolley**, A. Sedgwick. On spar torpedo warfare. (Institution of Naval Architects, Transactions, London, v. 16, 1875, p. 147-154.) **VXA**

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Notes on Bushnell's torpedo and the use of torpedoes during the Civil war.

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169. The **Admiralty** torpedo school. (Engineer, London, v. 42, 1876, p. 446.) **VA**

Brief note.

170. **Barnaby**, N. On ships of war. illus. (Institution of Naval Architects, Transactions, London, v. 17, 1876, p. 1-12.) **VXA**

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171. **Bradford**, Royal Bird. Suggestions on torpedo outfits of the vessels of the navy. Report on the torpedo fittings of the U. S. S. Intrepid. Washington: Gov. Prtg. Off., 1876. 21 p., 4 pl. 8°. (United States. — Ordnance Office, Navy Department.) **VXM p.v.2, no. 3**

172. **Circuit** closers. illus. (Engineering, London, v. 21, 1876, p. 96-98, 153, 184-185, 224-225; 404-406, 475-477, 549-550.) **VDA**

173. **Fish** torpedoes. (Engineer, London, v. 42, 1876, p. 289.) **VA**

Brief note.

174. **Locomotive** torpedoes. (Engineer, London, v. 42, 1876, p. 259.) **VA**

175. **Notes** on torpedoes: charge cases. illus. (Engineering, London, v. 22, 1876, p. 67-68.) **VDA**

176. The **Oberon** experiments. illus. (Engineer, London, v. 42, 1876, p. 14-15.) **VA**

177. **Offensive** torpedo warfare. (Engineer, London, v. 42, 1876, p. 11.) **VA**

Notes on the Harvey, Spar and Whitehead torpedoes.

178. **Recent** trial of the Lay torpedo. illus. (Scientific American supplement, v. 1, 1876, p. 337.) **VA**

179. **Signalling** and firing apparatus [for torpedoes]. illus. (Engineering, London, v. 22, 1876, p. 303-304, 306.) **VDA**

180. **Torpedo** accidents [at Woolwich and Portsmouth]. (Engineer, London, v. 41, 1876, p. 472, 484.) **VA**

181. **Torpedo** steam launches. (Engineering, London, v. 19, 1875, p. 165-166, 366-368; v. 20, 1875, p. 236.) **VDA**

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182. [Torpedoes for defence of harbors.] illus. (Engineering, London, v. 22, 1876, p. 459-460, 534-535.) **VDA**

183. **Torpedoes** at the International Exhibition, Philadelphia. (Engineering, London, v. 23, 1877, p. 54-55.) **VDA**

184. **Torpedoes** at the [International] Exhibition, Philadelphia. (Scientific American supplement, New York, v. 1, 1876, p. 388; v. 2, 1876, p. 479.) **VA**

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185. **Abel's** mechanical primer. (Engineering, London, v. 24, 1877, p. 83-84.) **VDA**

186. **Alliman**, A. L. Torpedoes and torpedo warfare. (Engineer, London, v. 44, 1877, p. 367.) **VA**

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187. **Allison**, R. Torpedoes. (Engineer, London, v. 43, 1877, p. 446.) **VA**

Note on the torpedo invented by the author and Capt. C. J. Norton.

188. **Basarow**, A. Vorlesungsversuch über Torpedos. (Deutsche chemische Gesellschaft, Berichte, Berlin, Jahrg. 10, 1877, p. 25-26.) **PKA**

189. **Capt. McEvoy's** spar torpedoes. (Engineer, London, v. 43, 1877, p. 340.) **VA**

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190. **Donaldson, John.** The Thornycroft torpedo-vessels; their construction, armament, etc., and the results of certain experiments that have been made with them. (Royal United Service Institution, Journal, London, v. 21, 1877, p. 611-632.) **VXA**

Notes on torpedoes and their use during the Civil war.

191. The **Early** history of torpedoes. (Royal Society of Arts, Journal, London, v. 25, 1877, p. 881-882.) **VA**

192. **Electric** batteries for torpedoes. illus. (Engineering, London, v. 24, 1877, p. 161-162.) **VDA**

193. **Electric** fuses, jointers, signalling, etc., for torpedoes. illus. (Engineering, London, v. 24, 1877, p. 219-220.) **VDA**

194. **Electro-contact** torpedoes. illus. (Engineering, London, v. 23, 1877, p. 157-158.) **VDA**

195. **Electro-mechanical** torpedoes. illus. (Engineering, London, v. 23, 1877, p. 214-215, 455-456.) **VDA**

With illustration, p. 216.

196. The **English** torpedo system. (Army and navy journal, New York, v. 14, 1877, p. 646-647.) †† **VWA**

197. **Ferris, John.** Notes on the removal of the hull of the ship "Forest" by extempore torpedoes. illus. (Royal United Service Institution, Journal, London, v. 21, 1877, p. 1133-1134.) **VWA**

198. **Gakuma, G.** Torpedoes. (Scientific American, New York, new series, v. 36, 1877, p. 337.) **VA**

199. **Gun, ram and torpedo.** (Army and navy journal, New York, v. 14, 1877, p. 834.) †† **VWA**

200. **Manufacture** of the Harvey torpedo. illus. (Scientific American, New York, new series, v. 36, p. 402.) **VA**

201. **Mechanical** torpedoes. (Engineering, London, v. 23, 1877, p. 406-408, 456.) **VDA**

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202. **Moisson.** Des explosions au sein de l'eau. (Revue maritime et coloniale, Paris, v. 52, 1877, p. 744-770; v. 53, 1877, p. 86-120.) **VXA**

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203. The **Moveable** torpedo and the European war. (Army and navy journal, New York, v. 14, 1877, p. 672-673.) †† **VWA**

204. **Pott, Constantin.** Die Entwicklung des Seeminen- und Torpedowesens, und dessen gegenwärtiger Stand in den ver-

schiedenen Staaten. (Mitteilungen aus dem Gebiete des Seewesens, Pola, Bd. 5, 1877, p. 426-435.) **VXA**

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207. **Scott, Michael.** On improved ships of war and their defence against torpedoes. (Institution of Naval Architects, Transactions, London, v. 18, 1877, p. 37-49.) **VXA**

Notes on effect of exploding torpedoes.

208. The **Steam** launch and the torpedo. (Army and navy journal, New York, v. 14, 1877, p. 688-689.) †† **VWA**

209. **Stone, Charles A.** A general description of the ordnance and torpedo outfit of the U. S. S. "Trenton." (United States Naval Institute, Proceedings, Annapolis, v. 3, 1877, p. 89-93.) **VXA**

210. **Torpedo** armament of various wars. (Royal United Service Institution, Journal, London, v. 21, 1877, p. 1137-1144.) **VWA**

211. **Torpedo** boats. (Engineer, London, v. 44, 1877, p. 419-420.) **VA**

Notes on torpedoes, p. 420.

212. **Torpedo** defence. (Army and navy journal, New York, v. 15, 1877, p. 201, 267.) †† **VWA**

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213. **Torpedo** defence. illus. (Engineering, London, v. 24, 1877, p. 279-280.) **VDA**

214. **Torpedo** experiment in Germany. (Engineer, London, v. 44, 1877, p. 88.) **VA**

Brief note.

215. **Torpedo** launch warfare. illus. (Scientific American, New York, new series, v. 36, 1877, p. 239, 246.) **VA**

216. **Torpedo** launches. illus. (Engineering, London, v. 23, 1877, p. 428-429, 448-450.) **VDA**

Also printed in *Van Nostrand's engineering magazine*, New York, v. 17, 1877, p. 125-128, **VDA**.

217. **Torpedo** range at the Royal arsenal canal. (Engineer, London, v. 43, 1877, p. 411.) **VA**

218. **Torpedo** warfare. (Illustrated London news, v. 70, 1877, p. 556-558.) *** DA**

Note on the "Alarm" designed by Admiral David Porter, U. S. N. Whitehead torpedo. Illustration of torpedo vessel used by the Russians on the Danube river; American torpedo-vessel Alarm.

219. **Torpedo** warfare. (Illustrated London news, London, v. 71, 1877, p. 227-229.) *** DA**

Illustrations: Suspension torpedoes in a rapid river; Punshon's floating torpedo; Turkish self-acting torpedo; Towing of Harvey's torpedo against an enemy; Hall Macdonald rocket; and Outrigger torpedo.

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220. **Torpedo warfare.** illus. (Scientific American, New York, new series, v. 37, 1877, p. 39-40.) **VA**

221. **Torpedoes at sea.** (Engineer, London, v. 43, 1877, p. 184.) **VA**

222. **Torpedoes in Turkey.** (Engineer, London, v. 44, 1877, p. 105.) **VA**

223. **Torpedoes in the United States.** (Engineer, London, v. 43, 1877, p. 4.) **VA**

224. **Die Torpedos im russisch-türkischen Kriege.** (Mittheilungen aus dem Gebiete des Seewesens, Pola, Bd. 5, 1877, p. 365-371, 460, 508-510, 579; Bd. 6, 1878, p. 22-27, 116-117, 284-285.) **VXA**

225. **Ueber Torpedoboote und Torpedos.** (Mittheilungen aus dem Gebiete des Seewesens, Pola, Bd. 5, 1877, p. 474-478.) **VXA**

226. **The United States torpedo steamer Alarm.** illus. (Scientific American, New York, new series, v. 36, 1877, p. 159, 162.) **VA**

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Invention of Captain Wilson.

586. New trials of the Sims-Edison torpedo. (Scientific American, New York, v. 65, 1891, p. 113.) **VA**

587. [Notes on the Whitehead torpedo.] (Engineer, London, v. 71, 1891, p. 401.) **VA**

588. **Orecchioni** electric dirigeable torpedo. (Army and navy journal, New York, v. 28, 1891, p. 602.) †† **VWA**

589. **Resultate** einiger mit österreichisch-ungarischen Torpedobooten vorgenommenen Neigungs- und Rollversuche. illus. (Mittheilungen aus dem Gebiete des Seewesens, Pola, Bd. 19, 1891, p. 201-212.) **VXA**

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594. A **Steel** cruiser sunk by torpedo boats. illus. (Scientific American, New York, v. 64, 1891, p. 359-360.) **VA**

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613. **Sims-Edison** torpedo. (Naval annual, Portsmouth, 1892, p. 4-6.) **VXA**

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625. **Drake**, Franklin J. Automobile torpedoes. (United States Naval Institute, Proceedings, Annapolis, v. 19, 1893, p. 1-53.) **VXA**

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626. **Escribano**, Gabriel. Modificaciones más importantes que se han introducido en el torpedo Whithead Schwartzkopff. (Revista general de marina, Madrid, tomo 32, 1893, p. 741-745.) **VXA**

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629. **Nasmyth's** torpedo boat of 1853. illus. (Scientific American, New York, v. 69, 1893, p. 135.) **VA**

Invention of James Nasmyth.

1893, *continued*.

630. **Naval** torpedoes. (Scientific American, New York, v. 69, 1893, p. 66.) **VA**
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631. **Protection** against torpedo-boats. (United States Naval Institute, Proceedings, Annapolis, v. 19, 1893, p. 489-490.) **VXA**

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633. **Tullinger**, Karl. Studie über die Stabilität der Rotationsachse mit besonderer Rücksicht auf den Howell-Torpedo. (Mittheilungen aus dem Gebiete des Seewesens, Pola, Bd. 21, 1893, p. 113-132.) **VXA**

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635. **Vogt**, H. C. The Simplex and Huge torpedoes. illus. (Scientific American supplement, New York, v. 35, 1893, p. 14362-14363.) **VA**

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636. **Again** a torpedo sinks a war vessel. (Scientific American, New York, v. 71, 1894, p. 18.) **VA**

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637. An **Aluminum** torpedo boat. illus. (Scientific American, New York, v. 71, 1894, p. 261; v. 72, 1895, p. 283.) **VA**

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645. **Jaques**, William Henry. The detachable ram, or the submarine gun as a substitute for the ram. (Institution of Naval Architects, Transactions, London, v. 35, 1894, p. 242-261.) **VXA**

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Notes on its use in the Brazilian navy.

648. **Richard**, Gustave. Torpille auto-directrice Ayton. illus. (La lumière électrique, Paris, tome 51, 1894, p. 166-167.) **VGA**

649. **Robinson**, Eugene. The evolution of the torpedo. (United service, Philadelphia, new series, v. 11, 1894, p. 1-7.) **VWA**

650. **Some** remarks on modern naval tactics. (Engineering, London, v. 58, 1894, p. 479-482, 512-513, 539-542, 585-586.) **VDA**
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651. **Sturdee**, Sir Frederick Charles Doughton. The tactics best adapted for developing the power of existing ships and weapons (gun, ram, and torpedo) which should regulate fleets, groups, and single vessels in action. (Royal United Service Institution, Journal, London, v. 38, 1894, p. 365-418.) **VWA**

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654. **Torpedo** net cutters. (Engineer, London, v. 78, 1894, p. 233.) **VA**
Brief note.

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656. **Visibility** of torpedo boats. (Scientific American, New York, v. 71, 1894, p. 258.) **VA**

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657. **Clergeau, Manuel.** Guide pratique du chauffeur et du mécanicien sur les bateaux-torpilleurs. Paris: L. Baudouin, 1895. x, 239 p., 39 pl. illus. 2. ed. 8°.

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Brief note.

660. **Gleaves, Albert.** The Howell torpedo. illus. (United States Naval Institute, Proceedings, Annapolis, v. 21, 1895, p. 125-129.)

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662. **Instrument for placing torpedoes.** illus. (Scientific American, New York, v. 72, 1895, p. 295.)

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1109. The **New** torpedo battery at Léoube bay. (The Navy, Washington, v. 3, June, 1909, p. 37.) † **VYE**

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1114. A **Radi-automatic** torpedo invented by M. Gustave Gabet. (Journal of United States artillery, Fort Monroe, v. 31, 1909, p. 213.) **VWA**

Brief note.

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With illustration on p. 217.

1117. **Schneider** torpedo testing station. illus. (Engineering, London, v. 88, 1909, p. 170-173.) **VDA**

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Brief note.

1909, continued.

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1147. **Ryan**, L. S. Mine commander's board. illus. (*Journal of the United States artillery*, Fort Monroe, v. 33, 1910, p. 33-37.) **VWA**

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1155. [Der **Kleine Kreuzer "Cassini,"** Minenleger.] (*Schiffbau*, Berlin, Jahrg. 13, 1911, p. 21.) † **VXA**

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1157. — Les mines sous-marines. (*Moniteur de la flotte*, Paris, année 58, no. 41, Oct. 14, 1911, p. 3.) †† **VYH**

1158. — Le sous-marin mouilleur de mines. (*Moniteur de la flotte*, Paris, tome 58, no. 6, Feb. 11, 1911, p. 3.) †† **VYH**

1159. — Les torpilles à réchauffeur d'air. (*Moniteur de la flotte*, Paris, année 58, no. 15, April 15, 1911, p. 3.) †† **VYH**

1160. **Naval officer** invents aerial torpedo. (*Aeronautics*, New York, v. 9, 1911, p. 141-142.) **VDS**

Invention of Paul E. Chamberlin, U. S. M. C.

1161. **Nouveaux** essais sur la commande à distance des bateaux et torpilles auto-

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VYL

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VXP

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†† VWA

First United States government test of the torpedo invented by Cleland Davis, U. S. N.

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VDA

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VXA

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VXA

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†† VYH

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VA

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1173. Die Lancierungen mit Manöver-sprengpatronen. (Mitteilungen aus dem Gebiete des Seewesens, Pola, Bd. 40, 1912, p. 1410-1413.)

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VWA

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1178. Seeminen. illus. (Ueberall, Berlin, Jahrg. 14, 1912, p. 322-327, 475-480.)

†† VXA

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VA

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VA

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VA

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The torpedo on capital ships.

1187. **Bohn & Kähler**. Auf Zeit einstellbare Vorrichtung zum Versenken von Seeminen. illus. (*Zeitschrift für das gesamte Schiess- und Sprengstoffwesen*, München, Jahrg. 8, 1913, p. 475-476.)

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1189. **Charmoille**. Le calibre de la torpille automobile. (*Journal de la marine, le yacht*, Paris, année 36, 1913, p. 433-434.)

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VWA

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VA

1197. The **French** mine layers *Cerbere* and *Pluton*. illus. (*Engineer*, London, v. 116, 1913, p. 515.)

VA

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VA

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1334. **Device** to render battleships immune from attack. (New York Times, July 20, 1915, p. 2, col. 4.) * D
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1347. **La Guerra** al commercio nei mari settentrionali d'Europa. Dall' inizio al 31 luglio 1915. (Rivista marittima, Roma, anno 48, trimestre 3, 1915, p. 104-120.) VXA
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1421. **Cardile**, D. La questione del motore unico per i sommergibili. (Rivista marittima, Roma, anno 49, trimestre 4, 1916, p. 211-227.)

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1436. **Hammond** wireless torpedo. (New York Times, Feb. 3, 1916, p. 6, col. 4.)

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1444. **Miessner**, Benjamin Franklin. Radiodynamics, the wireless control of torpedoes and other mechanisms. New York: D. Van Nostrand Co., 1916. v, 206 p. illus. 8°. PGO
Ch. 11: The advent of wirelessly controlled torpedoes, p. 78-88. Ch. 12: Selectors, p. 89-91. Ch. 13: European control systems, p. 92-106. Ch. 14: Work of the Hammond radio research laboratory, p. 107-123. Ch. 15: The solution of the problems related to battle-range torpedo control, p. 124-136.
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1447. **Moore**, Willard G. A time-controlled aerial torpedo. illus. (Aviation and aeronautical engineering, New York, v. 1, 1916, p. 322-323.) † VDS
1448. **Muniz Barreto**, Edmundo Williams. O contra-torpedeiro na esquadra moderna. (Revista maritima brasileira, Rio de Janeiro, v. 68, 1916, p. 201-220.) VXA
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1451. **Procacci**, Gianni. Impianto di bussola magnetica per sommergibile. illus. (Rivista marittima, Roma, anno 49, trimestre 2, 1916, p. 168-177.) VXA
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- 1452a. — Os submersiveis na presente guerra. (Revista maritima brasileira, Rio de Janeiro, v. 68, 1916, p. 677-682.) VXA
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1454. **Protection** against submarine torpedo attack. (New York Times, Feb. 6, 1916, part 5, p. 7, col. 1.) * D
Article on invention by M. Weil.
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1458. **Ship's** under-water eye sights hidden mines. illus. (Popular mechanics, Chicago, v. 25, 1916, p. 161.) VFA
1459. **Ships** proof against the torpedo. (Scientific American, New York, v. 115, 1916, p. 95.) VA
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1462. **Test** of Hammond wireless control torpedo. (Army and navy journal, New York, v. 54, 1916, p. 338-339.) †† VWA
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1463. **Torpedo** catcher. (New York Times, Aug. 14, 1916, p. 4, col. 6.) * D
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1465. **Torpedo** supply. (New York Times, May 1, 1916, p. 6, col. 5.) * D
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1467. **Torpedo** tubes in large warships. (Engineer, London, v. 121, 1916, p. 441-442.) VA
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1489. **Points** on the torpedo. (Scientific American, New York, v. 117, 1917, p. 38.) VA

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1491. **Torpedo** manufacturing project. (Army and navy register, Washington, v. 61, 1917, p. 194-195.) †† VWA

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1497. **Torpedoplane** invented by Rear-Admiral Fiske. illus. (United States Naval Institute, Proceedings, Annapolis, v. 43, 1917, p. 1524-1526.) VXA

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1498. **United States**. — Naval Intelligence Office. A brief description of submarine mines... Washington: Gov. Prtg. Off., 1917. 8 f. illus. 8°. VXV

1498a. **United States**. — Ordnance Office, War Department. Description and instructions for the use of rifle and hand grenades. Washington: Gov. Prtg. Off., 1917. 14 p., 3 pl. 8°. VOD p. box

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1500. **Weaver**, Erasmus Morgan. Notes on military explosives. New York: John Wiley & Sons, Inc., 1917. viii, 382 p. 8°. VOG

Precautions to be observed in charging torpedoes and shell with high explosives, p. 241-242.

1501. **Woodhouse**, Henry. Textbook of naval aeronautics. With introduction by Rear Admiral Bradley A. Fiske. New York: The Century Co., 1917. 7 p.l., 3-288 p. illus. f°. † VDY

How the revolutionary Leavitt torpedo was developed, p. 14-15. The torpedoplane and its possibilities, Bradley A. Fiske, p. 16-19. Locating submerged mines with aircraft, p. 51-52.

SUPPLEMENT

1586

1502. Collado, Luys. Pratica manvale di artiglieria; nella quale si tratta della inuentione di essa, dell' ordine di condurla, & piantarla sotto à qualunque fortezza, fabbricar mine da far volar in alto le fortezze, spianar le montagne, diuertir l'acque offensive à i regni & prouincie, tirar co i pezzi in molti & diuersi modi, far fuochi artificiali; con altri bellissimoi secreti all' essercitio dell' artiglieria appartenenti. Nuouamente composta & data in luce dal Mag. Signor Lvigi Collado. In Venetia, Presso Pietro Dusinelli, 1586. 6 p.l., 92 f., 1 diagr. illus. f°. † VWW

1775

1503. Gale, Benjamin. [The American Turtle, built at Saybrook by David Bushnell.] (Connecticut Historical Society. Collections, Hartford, v. 2, 1870, p. 315-318, 322-323, 333-335.) IAA

Letters to Silas Deane, written from Killingworth, Conn., Nov. 9, 22, and Dec. 7, 1775, in which he gives a report on the progress made on "our machine," the "American Turtle," invented by David Bushnell. Gale also states that Dr. Franklin was consulted in regard to its construction, and gives a description of the submarine and explains the method of using the explosive.

1778

1504. Symons, J. [Report on David Bushnell's attempt to blow up the Cerberus.] (The Remembrancer; or, Impartial repository of public events for the year 1778, London, 1778, p. 90-92.) Reserve

Letter written by the commander of the *Cerberus* to Rear Admiral Sir Peter Parker, giving an account of the attempted destruction of his ship by Bushnell's "infernal machine."

Symons reports that the torpedo was taken from the water by four men in a small boat and through their "fatal curiosity" the mechanism was examined with the result that "it blew the boat into pieces, and set her in a flame, killed the three men that were in the stern; the fourth, who was standing forward, was blown into the water." From this survivor the description of the torpedo was secured and a model made, which was forwarded to Admiral Parker. Symons remarks that the "ingenuity of these people is singular in their secret modes of mischief."

This letter is abstracted in Thomas Clark, *Naval history of the United States*, Philadelphia, 1814, v. 1, p. 72-74, 1YE.

1813

1505. Clark, Thomas. Sketches of the naval history of the United States. Philadelphia, 1813. 12°. VYE

Chap. 5, p. 39-41. The torpedo, or American Turtle.

1814

1506. Clark, Thomas. Naval history of the United States, from the commencement of the Revolutionary war to the present time. Philadelphia, 1814. 2 v. 2. ed. 12°. VYE

v. 1, chap. 5, p. 63-74. D. Bushnell, inventor of the torpedo, &c.

Reprints letter written by Bushnell to Thomas Jefferson in October, 1787, giving a full account of his torpedo and submarine; also his experiments made with the design of firing shipping, and his attempt to destroy the *Cerberus*.

1815

1507. Notice sur les fusées incendiaires de Congrève; suivie de la description et de l'analyse qui en a été faite par M. d'Arcet. 1 pl. (Annales des arts et manufactures, Paris, 1815, tome 55, p. 52-76.) VA

Description and analysis of incendiary rockets. Notes their use at the battle of Leipzig.

1819

1508. Petitot, Claude Bernard. De la défaite et de la prise du Comte de Pembroc devant la Rochelle, par les flotes de France et d'Espagne dont la première étoit commandée par Ivain de Galles. (In his: Collection complète des mémoires... Paris, 1819. 8°. v. 5, p. 110-123.) DBA

Gives account of the use of fire ships at La Rochelle at the defeat of the Earl of Pembroke.

1845

1509. Reinaud, Joseph Toussaint, and ILDEPHONSE FAVÉ. Histoire de l'artillerie. 1^{re} partie. Du feu grégeois, des feux de guerre et des origines de la poudre à canon d'après des textes nouveaux. Paris: J. Dumaine, 1845. 2 p.l., 285 p., 1 l., 8°, and atlas of 17 pl., 4°. VWW

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1861

1510. A Rebel torpedo. illus. (Frank Leslie's illustrated newspaper, New York, v. 13, 1861, p. 352.) * DA

1865

1511. Die Hoellenmaschinen oder Torpedo's des neueren amerikanischen Krieges. (Dingler's polytechnisches Journal, Augsburg, Bd. 176, 1865, p. 107-109.) VA

1865, *continued*.

1512. **Sketch** of a torpedo picked up in Morganza Bend, Mississippi river, by the crew of the U. S. S. Lafayette. (Frank Leslie's illustrated newspaper, New York, v. 20, 1865, p. 189.) *DA

1868

1513. **Figuier, Louis.** Les poudres de guerre. (In his: Les merveilles de la science, Paris, tome 3, 1868, p. 209-308.) V

A very complete historical article, giving data on Greek fire, use of fire barrels on land and on ships, incendiary bombs, fire lances, and incendiary chariots. Greek fire used at the siege of Constantinople in 1453.

1870

1514. **John Ericsson's** neues System für den unterseeischen Angriff. (Dingler's polytechnisches Journal, Augsburg, Bd. 197, 1870, p. 120-127.) VA

From *Militär-Wochenblatt* for May 11, 1870.

1515. **Neuer** Torpedo von John Ericsson. (Dingler's polytechnisches Journal, Augsburg, Bd. 196, 1870, p. 429-435.) VA

From *Militär-Wochenblatt* for April 23, 1870.

1516. **Submarine** warfare. illus. (Engineering, London, v. 9, 1870, p. 104-105.) VDA

Review of work by J. S. Barnes entitled *Submarine warfare, offensive and defensive*, New York, 1870. Also reviewed in *Van Nostrand's eclectic engineering magazine*, New York, v. 2, 1870, p. 409-412, VDA.

1871

1517. **The Harvey** torpedo. illus. (Engineering, London, v. 11, 1871, p. 35-36.) VDA

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1874

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1519. — **Military** torpedo defences. (Society of Telegraph Engineers, Journal, London, v. 3, 1874, p. 54-60.) VGA

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1520. **Unterwasserfahrten**, Höllenmaschinen, &c. illus. (Das neue Buch der Erfindungen, Gewerbe und Industrien. Leipzig, 1875. 6. ed. 8°. Ergänzungs-Band, p. 357-364.) V

1876

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Lecture delivered at Foochow, China.

1522. **Fluessige** Kohlensäure al Motor. (Dingler's polytechnisches Journal, Augsburg, Bd. 219, 1876, p. 371-372.) VA

On the use of liquid sulphid in torpedoes.

1523. **Submarine** gun. illus. (In: Knight's American mechanical dictionary, New York, 1876, v. 3, p. 2439.) VF

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1524. **A Torpedo** college in China. (Telegraphic journal and electrical review, London, v. 4, 1876, p. 282.) VGA

Imperial Torpedo College at Tientsin, Mr. J. A. Betts, director.

1877

1525. **The Eastern** war. Turkish divers removing Russian torpedoes off Poti in the Black sea. illus. (Frank Leslie's illustrated newspaper, New York, v. 44, 1877, p. 407.) *DA

Full-page illustration on p. 408.

1526. **Gakuma, G.** Torpedoes, their history, construction and use. (Frank Leslie's illustrated newspaper, v. 44, 1877, p. 239.) *DA

1527. **Protection** against torpedoes. (The manufacturer and builder, New York, v. 9, 1877, p. 232.) VA

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1530. **Whitehead** torpedo. (Polytechnic review, Philadelphia, v. 4, 1877, p. 93, 105.) VA

Brief notes.

1879

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1881

1532. The **Electric** light and the torpedo. (Telegraphic journal and electrical review, London, v. 9, 1881, p. 484.) **VGA**

Experiments made at Portsmouth in detecting the approach of a torpedo.

1533. The **Ericsson** torpedo. illus. (The manufacturer and builder, New York, v. 13, 1881, p. 35-36.) **VA**

1882

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1883

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Note on torpedoes.

1536. **Luft-Treibtorpedos**. (Dingler's polytechnisches Journal, Augsburg, Bd. 250, 1883, p. 138.) **VA**

1537. **Neuerungen** an den in der Deutschen Marine gebräuchlichen Torpedos. (Dingler's polytechnisches Journal, Augsburg, Bd. 248, 1883, p. 362-363.) **VA**

1538. **Ueber** Neuerungen an Torpedobooten. (Dingler's polytechnisches Journal, Augsburg, Bd. 247, 1883, p. 56-64.) **VA**

Notes on Bushnell, Fulton, Harvey, Fish, Whitehead, and Nordenfeldt torpedoes.

1884

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1540. **New** torpedo boats. (Telegraphic journal and electrical review, London, v. 15, 1884, p. 176.) **VGA**

Notes on John Ericsson's boat and Professor Tuck's electric submarine torpedo boat.

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1542. **Th. Nordenfeldt's** Kartätschgeschütz. (Dingler's polytechnisches Journal, Augsburg, Bd. 254, 1884, p. 429-432.) **VA**

1885

1543. **Canet's** Geschütz zum Schleudern von Fischtorpedos. illus. (Dingler's polytechnisches Journal, Augsburg, Bd. 255, 1885, p. 21-23.) **VA**

1544. A **New** torpedo guide. (Telegraphic journal and electrical review, London, v. 16, 1885, p. 360.) **VGA**

Brief description of new method of controlling torpedoes.

1545. **Paulson's** self propelling and steering torpedo. illus. (Telegraphic journal and electrical review, London, v. 16, 1885, p. 213-215.) **VGA**

Invention of Richard Paulson.

1886

1546. **Boyd**, Robert. Report of torpedo attack and defenses of U. S. S. "Tennessee." (United States Naval Institute, Proceedings, Annapolis, v. 13, 1887, p. 266-268.) **VXA**

Experiments made in September, 1886.

1547. **Torpedoes**. (In: United States.—Office of Naval Intelligence, General information series no. 5, Washington, 1886, p. 246-254.) **VYEB**

Notes on the Whitehead, Howell, Sims-Edison, Patrick, Paulson, and Berdan torpedoes, on torpedo nets and on the torpedo experiments at Cherbourg.

1548. **Torpedoes** electrically steered. (Telegraphic journal and electrical review, London, v. 18, 1886, p. 237.) **VGA**

Brief note on invention of Thomas A. Edison.

1549. **Value** of torpedoes. (Telegraphic journal and electrical review, London, v. 19, 1886, p. 79.) **VGA**

Notes on the Whitehead torpedo and experiments made in Fareham creek.

1887

1550. **Dynamite** in war, the pneumatic torpedo gun. illus. (Manufacturer and builder, New York, v. 19, 1887, p. 128-129, 158-159, 182-184.) **VA**

Notes on the Lay, Patrick, and Sims torpedoes.

1887, *continued*.

1551. **Kesselheizung** mit flüssigen Kohlenwasserstoffen. (Dingler's polytechnisches Journal, Augsburg, Bd. 266, 1887, p. 202-208.) **VA**

1552. The **Lay** torpedo. (Telegraphic journal and electrical review, London, v. 20, 1887, p. 211, 217-218.) **VGA**

Notes on experiments.

1553. Ein **Neuer** Torpedo. (Mittheilungen aus dem Gebiete des Seewesens, Pola, Bd. 15, 1887, p. 390.) **VXA**

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Notes on the torpedo invented by Edward C. Peck.

1554. The **New** submarine boat Nordenfeldt. (Engineer, London, v. 63, 1887, p. 400.) **VA**

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1555. **Schroeder**, Seaton. The development of modern torpedoes. (In: United States.—Naval Intelligence Office. General information series no. 6: Recent naval progress, Washington, 1887, p. 1-44, 332-336.) **VYEB**

Notes on the following types of torpedoes: Berdan, Harvey, Barber, Burdett, Chambers, Whitehead, Rendel, Schwartzkopff, Howell, Mallory, Hall, Paulson, Callender, Lay, Patrick, Coda-Canati, Von Scheliha, Smith, Foster, Nordenfeldt, Nealy, Scott, Sims-Edison, and Brennan.

1556. **Torpedo** boats. (Telegraphic journal and electrical review, London, v. 21, 1887, p. 73, 297.) **VGA**

Brief description of the *Ariete* and *Benbow*.

1888

1557. **Brialmont**, Alexis Henri. Influence du tir plongeant et des obus-torpilles sur la fortification. Bruxelles: E. Guyot, 1888. 2 v. 4° and f°. **VWS** and † **VWS**

[v. 1.] Text.

[v. 2.] Atlas.

1558. **Neuerungen** im Schiffswesen. (Dingler's polytechnisches Journal, Augsburg, Bd. 270, 1888, p. 481-491, 540-551.) **VA**

Notes on torpedoes, p. 481, 488.

1559. **New** electrical torpedo. (Telegraphic journal and electrical review, London, v. 22, 1888, p. 682.) **VGA**

Brief note on the Nordenfeldt torpedo.

1560. **Nordenfeldt** torpedo. (Engineering news, New York, v. 20, 1888, p. 61.) **VDA**

Brief note from *Montreal Star*.

1561. **Torpedo** service. (Western electrician, Chicago, v. 3, 1888, p. 204-205.) **VGA**

Torpedo experiments at College Point, with description of torpedo.

1889

1562. **King**, William R. Annual report, Willets Point, N. Y., Engineer School of Application. pl. (In: United States.—Engineer Department. Annual report of the chief of engineers, Washington, 1889, part 1, p. 467-502.) **VDDA**

Reports on torpedo experiments, p. 478-483, 489-490, 492; Report of a board of engineers on the Patrick "auto-mobile controllable torpedo," p. 497-502.

1563. **Neues** im Schiffswesen. (Dingler's polytechnisches Journal, Stuttgart, Bd. 272, p. 529-539.) **VA**

Descriptions of German patents granted to G. E. Haight, W. H. Wood, J. O. Kelly, B. A. Collins, H. S. Maxim, S. H. Nealy, L. Hutchins, T. Favarger, A. Corsssen, and Graf Buonacorsi di Pistoja.

1564. **Neues** im Schiffswesen: Torpedoboote und Torpedos. (Dingler's polytechnisches Journal, Augsburg, Bd. 272, 1889, p. 486-500.) **VA**

1565. **Newton**, J. T. Fish-torpedo armament. 4 diagrs., 1 pl. (In: United States.—Office of Naval Intelligence, General information series no. 8, Washington, 1889, p. 185-198.) **VYEB**

1566. — Torpedoes. (In: United States.—Office of Naval Intelligence, General information series no. 8, Washington, 1889, p. 428-436.) **VYEB**

Notes on the Whitehead, Schwartzkopff, Howell, Brennan, Patrick, Sims-Edison, and Pietruski torpedoes.

1890

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Inventor of a torpedo boat destroyer and the famous *Monitor*.

1568. **Ellicott**, John M. Automobile torpedoes, the Whitehead and Howell with a detailed description of each. 12 diagrs. (In: United States.—Office of Naval Intelligence, General information series, no. 9, p. 381-408.) **VYEB**

1569. The **Gifford** liquid-gas gun. illus. (Engineering news, New York, v. 24, 1890, p. 121.) **VDA**

1570. **Russische** Kriegsschiffe. (Dingler's polytechnisches Journal, Stuttgart, Bd. 276, 1890, p. 597.) **VA**

Notes on torpedoes.

1571. **Southerland**, W. H. H. Torpedoes. (In: United States.—Naval Intelligence Office. General information series no. 9: A year's naval progress, Washington, 1890, p. 134-138.) **VYEB**

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1891

1572. **Sims-Edison** automatic torpedo. illus. (Western electrician, Chicago, v. 8, 1891, p. 333.) **VGA**

1573. **Southerland**, W. H. H. Torpedoes. illus. (In: United States. — Naval Intelligence Office. General information series no. 10: The year's naval progress, Washington, 1891, p. 176-181.) **VYEB**

1574. **Trial** of the Sims-Edison torpedo. (The manufacturer and builder, New York, v. 23, 1891, p. 186.) **VA**

1892

1575. **Submarine** navigation. (The manufacturer and builder, New York, v. 23, 1892, p. 168.) **VA**

Note on the early history of the submarine and torpedo.

1576. **Torpedoboote** und **Torpedodepot-schiffe**. (Dingler's polytechnisches Journal, Stuttgart, Bd. 284, 1892, p. 22-23.) **VA**

Notes on various types of torpedoes.

1577. **Torpedoes** [and] **Torpedo** defense. 2 diagrs. (In: United States. — Office of Naval Intelligence, General information series no. 11: Notes on the year's naval progress, Washington, 1892, p. 128-135.) **VYEB**

Notes on the Sims-Edison and the Whitehead torpedoes, and the Ericsson submarine gun; also on torpedo-boom experiments, net-cutting attachments, and torpedo-discharging apparatus.

1578. **Trials** of the torpedo boat "Cushing." (Engineering news, New York, v. 27, 1892, p. 10.) **VDA**

1893

1579. **Robert Fulton**. port. (In: National cyclopaedia of American biography, New York, v. 3, 1893, p. 104-105.) *** R - AGZ**

Notes on his torpedo and submarine.

1580. **Sears**, James H., and B. W. **WELLS, JR.** The Chilean revolution of 1891. Washington: Gov. Prtg. Off., 1893. 66 p., 2 charts, 1 diagr., 4 maps, 3 pl., 1 table. 8°. (United States. — Office of Naval Intelligence. War series. no. 4.) **VYEB**

The sinking of the *Blanco Encalada*, p. 18-24.

Official reports of the commanding officers on both sides are given in full, and extracts from the report of the commission appointed to examine into the possibility of raising the *Blanco Encalada*.

1581. **Thomas Alva Edison**. port. (In: National cyclopaedia of American biography, New York, v. 3, 1893, p. 441-444.) *** R - AGZ**

Inventor of torpedo.

1894

1582. **Torpedo** launch for the U. S. battleship "Maine." illus. (Engineering news, New York, v. 32, 1894, p. 432-433.) **VDA**

1896

1583. **John Adams Howell**. (In: National cyclopaedia of American biography, New York, v. 6, 1896, p. 44.) *** R - AGZ**

Inventor of the Howell torpedo.

1584. **Matthew Fontaine Maury**. (In: National cyclopaedia of American biography, New York, v. 6, 1896, p. 35-36.) *** R - AGZ**

Inventor of torpedo mines.

1585. **Samuel Colt**. (In: National cyclopaedia of American biography, New York, v. 6, 1896, p. 175-176.) *** R - AGZ**

Inventor of submarine mines.

1586. **William Henry Shock**. (In: National cyclopaedia of American biography, New York, v. 6, 1896, p. 200.) *** R - AGZ**

Inventor of torpedo devices.

1897

1587. **Alexander** Thompson Ballantine. port. (In: National cyclopaedia of American biography, New York, v. 7, 1897, p. 540.) *** R - AGZ**

Inventor of oil-well torpedoes.

1588. **Edmund Louis Gray Zalinski**. port. (In: National cyclopaedia of American biography, New York, v. 7, 1897, p. 248.) *** R - AGZ**

Inventor of the pneumatic torpedo-gun.

1589. **George Bomford**. (In: National cyclopaedia of American biography, New York, v. 7, 1897, p. 495.) *** R - AGZ**

Inventor of a bomb cannon, known as the "columbiad."

1590. **John Lewis Lay**. (In: National cyclopaedia of American biography, New York, v. 7, 1897, p. 528-529.) *** R - AGZ**

Inventor of the Lay torpedo.

1591. **Thomas Oliver Selfridge**. (In: National cyclopaedia of American biography, New York, v. 7, 1897, p. 552.) *** R - AGZ**

Inventor of devices for protecting ships from torpedoes.

1898

1592. **David Bushnell**. (In: National cyclopaedia of American biography, New York, v. 9, 1898, p. 244.) *** R - AGZ**

Notes on his torpedo and submarine.

1593. **Davidson**, Hunter. Torpedoes in our war. (United States Naval Institute, Proceedings, Annapolis, v. 24, 1898, p. 349-354.) **VXA**

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Notes on torpedo invented by Louis Edmond Bolot of Paris, p. 246.

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Trial of torpedo nets on H. M. S. "Hannibal."

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1597. **Koester, O. W.** The torpedo-boat, destroyer, and depot. (United States Naval Institute, Proceedings, v. 25, 1899, p. 851-855.) **VXA**

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1599. **Les Bombes** et le laboratoire municipal. illus. (Le monde illustre, Feb. 11, 1905, p. 88-89.) * **DM**

1600. **Torpedo-Motorboote.** (Dingler's polytechnisches Journal, Berlin, Bd. 320, 1905, p. 254-255.) **VA**

1906

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1602. **Hudson Maxim.** port. (In: National cyclopaedia of American biography, New York, v. 13, 1906, p. 520-521.) * **R - AGZ**

Inventor of an automobile torpedo.

1603. **Infernal machine** discussed by great experts. illus. (Illustrated London news, London, v. 128, 1906, p. 836-837.) * **DA**

1604. **Lalande, L.** L'engin porte-torpilles sous-marin. (Bulletin technologique, Paris, année 1906, v. 2, p. 812-853.) **VA**

A very complete article giving mathematical formulae on the torpedo.

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1909

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Inventor of a system of submarine mine defense.

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Application to torpedoes, p. 636-637.

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1622. **Entwicklung** und Stand des Minensuchwesens. illus. (Nauticus: Jahrbuch für Deutschlands Seeinteressen, Berlin, Jahrg. 16, 1914, p. 241-264.) **VYL**

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Notes on use in torpedoes.

1625. **French** build artificial island of concrete. illus. (Popular mechanics magazine, New York, v. 21, 1914, p. 773.) **VFA**

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1627. **German** warship in torpedo practice. illus. (Popular mechanics magazine, New York, v. 21, 1914, p. 729.) **VFA**

Illustration of discharge of torpedo.

1628. **Grenade** that is fired from a rifle. illus. (Popular mechanics magazine, New York, v. 21, 1914, p. 684-685.) **VFA**

1629. The **Menace** of the mine; how these death-dealing weapons are laid and how they may be removed. illus. (Navy and army illustrated, London, new series, v. 1, 1914, p. 14-16.) **† VWZH**

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1634. The **Torpedo** in war. illus. (Navy and army illustrated, London, new series, v. 1, 1914, p. 65-68.) **† VWZH**

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1635. **Torpedo** nets. (Shipbuilding and shipping record, London, v. 3, 1914, p. 410.) **† VXH**

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1636. **Wood**, Walter. Mine sweeping. illus. (Navy and army illustrated, London, new series, v. 1, 1914, p. 147-148.) **† VWZH**

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1637. **Armstrong**, James. The sweepers of the seas. illus. (Navy and army, London, new series, v. 4, 1915, p. 24-25.) **† VWZH**

1638. **Aubigny**, P. d'. Un nouvel explosif de guerre, la thermite. (La Revue, Paris, 1915, v. 111, p. 528-531.) *** DM**

Invention of John Hays Hammond, jr. Data on incendiary shell generating prussic acid gas.

1639. **B., M.** Eine behelfsmässig hergestellte Handgranathaubitze (Handgranatschleuder). (Kriegstechnische Zeitschrift, Berlin, Jahrg. 17, 1914, p. 29-32.) **VWA**

1915, continued.

1640. **Bennett**, Arnold. In the fire-trenches. illus. (Illustrated London news, London, 1915, v. 147, p. 258-259.) * DA

Illustration of a bomb mortar, p. 259.

1641. Les **Bombes** incendiaires employées par les dirigeables et les avions allemands. illus. (Génie civil, Paris, tome 67, 1915, p. 11.) VA

1642. **Bradwood**, W. War missiles, ancient and otherwise. (The Field, London, v. 125, 1915, p. 525-527.) † VPA

A very complete article; gives history of the Greek fire and the use of petroleum in inflammable missiles.

1643. [British bomb-throwers in action at La Bassée.] illus. (Illustrated London news, v. 146, 1915, p. 490-491.) * DA

1644. The **Business** end of a submarine. illus. (Navy and army, London, new series, v. 4, 1915, p. 108-109.) † VWZH

Illustration of the breech blocks of a Holland submarine, showing four torpedo tubes arranged in pairs on each side of the central hand wheel.

1645. **C.**, J. Air-torpedoes and air-mines, and the weapons that fire them. illus. (Illustrated London news, London, v. 147, 1915, p. 309.) * DA

Illustration of the firing of an air-mine weighing 236 pounds.

1646. — French trench guns: crapouillot; taupia; and arbalist. illus. (Illustrated London news, London, v. 147, 1915, p. 308.) * DA

Fine illustrations showing use of these guns.

1647. **Cossmann**, Edward C. Hand grenades. illus. (Scientific American, New York, 1915, v. 112, p. 427.) VA

1648. **Fire** warnings: how to deal with bombs. (Illustrated carpenter and builder, London, v. 77, 1915, p. 346.) † 3 - VEA

1649. **Flamel**, Nicolas. Les torpilles aériennes. illus. (La nature, Paris, année 43, semestre 2, 1915, p. 263-266.) OA

Gives valuable historical notes on the bomb and several cuts of trench cannon.

1650. The **Force** of the torpedo of the kind which sunk the "Lusitania." illus. (Illustrated London news, London, v. 146, 1915, p. 613.) * DA

Illustration of damage done a ship by the explosion of a torpedo.

1651. **German** flame-projectors in use; French testing "Flammenwerfer" captured from the enemy. (Illustrated London news, London, v. 147, 1915, p. 330-331.) * DA

1652. **German** incendiary bombs. illus. (Applied science, Toronto, v. 27 [new series, v. 10], 1915, p. 50-51.) VA

1653. **German** Zeppelin raids over Great Britain. (Sphere, London, v. 62, 1915, p. 296-297, 334.) * DA

1654. Die **Gewehr-** und Handgranate der indischen Armee. illus. (Kriegstechnische Zeitschrift, Berlin, Jahrg. 18, 1915, p. 88-89.) VWA

1655. The **Grasshopper** and the torpedo of the air. illus. (Illustrated London news, London, v. 147, 1915, p. 144-145.) * DA

Illustration of crossbow for hurling bombs, etc., also the torpedo shell.

1656. The **Greatest** war. By Colonel "X." illus. (Navy and army, London, new series, v. 4, p. 158-161.) † VWZH

Part I. The war on land.

Gives illustrations of a German poisonous gas bomb mortar and French soldiers hurling grenades at the German trenches.

1657. **Guenther**, Hanns. Handgranaten. illus. (Schweizerische militärische Blätter: Schweizerische Monatschrift für Offiziere aller Waffen, Frauenfeld, Jahrg. 27, 1915, p. 192-196, 234-240.) VWA

1658. The "**Gulflight**" case. illus. (Literary digest, New York, v. 50, 1915, p. 1135.) * DA

Valuable notes on the torpedoing of this ship.

1659. **Hand** grenade. illus. (Engineer, London, v. 120, 1915, p. 566.) VA

Reprinted in *Génie civil*, Paris, tome 68, 1916, p. 141, *V.A.*

Description of English patent issued Nov. 17, 1915, to F. E. Baker.

1660. [Illustration of bomb used by the Allies' airmen at Gallipoli.] illus. (Illustrated London news, London, v. 147, 1915, p. 685.) * DA

1661. **Lake**, Simon. Submarines that are strictly invisible; a type that can pass through a mine field and attack a blockaded fleet. illus. (Scientific American, New York, v. 112, 1915, p. 68-69, 74-75.) VA

Abstracted in *Illustrated London news*, v. 146, 1915, p. 210-211, * DA, under title: A wheeled submarine designed to motor through mine fields, lay mines, and enter defended harbors.

1662. The **Leon** torpedo. (Royal Society of Arts, Journal, London, v. 63, 1915, p. 1031-1032.) VA

Invention of Carl Leon, a Swedish officer.

1663. **Lewes**, Vivian B. Modern munitions of war: poison gases and incendiary bombs. (Royal Society of Arts, Journal, London, v. 63, 1915, p. 827-831.) VA

Abstracted in *Engineer*, London, v. 120, 1915, p. 82-83, *V.A.*; *Nature*, London, v. 95, 1915, p. 608-609, *O.A.*; and in *Illustrated London news*, London, v. 147, 1915, p. 140, * DA.

1664. — Modern munitions of war: shells and high explosives. (Royal Society of Arts, Journal, London, v. 63, 1915, p. 823-827.) VA

Abstracted in *Illustrated London news*, London, v. 147, 1915, p. 108, 98, * DA.

Valuable notes on bombs and grenades. The second of the Fothergill lectures for 1915.

1665. The "**Lusitania**" torpedoed. illus. (Literary digest, New York, v. 50, 1915, p. 1133-1134.) * DA

1915, continued.

1666. **M., A. W.** Mine-sweeping in the North sea. illus. (The Field, London, v. 125, 1915, p. 90.) † VPA

Describes methods used.

1667. **A Master** of the torpedo. illus. (Navy and army, London, new series, v. 3, 1915, p. 367-370.) † VWZH

Notes on the work of Sir Arthur Knivet Wilson, popularly known as "Tug Wilson," former commander of H. M. S. *Vernon*, the torpedo school at Portsmouth, Eng.

1668. **Metallographische** Untersuchung einiger Granatsplitter. illus. (Stahl und Eisen, Düsseldorf, Jahrg. 35, 1915, p. 170-171.) VIA

1669. **Mills, W.** The Mills grenade. illus. (Arms and explosives, London, v. 23, 1915, p. 154.) † VOG

1670. **The Mine** war in the trenches: explosion and crater. illus. (Illustrated London news, London, v. 60, 1915, p. 699.) * DA

Another illustration, p. 719.

1671. **Modernizing** the hand-grenade. illus. (Literary digest, New York, v. 50, 1915, p. 1015-1016.) * DA

Compiled from *Technical world magazine*, April, 1915.

1672. **Munitions** of the present war. (Railway review, Chicago, v. 57, 1915, p. 373-376.) † TPB

Poisonous gases and incendiary bombs, p. 375-376.

1673. **Newton, W. Douglas.** The bomber, a psychological study. (Illustrated London news, London, v. 147, 1915, p. 632.) * DA

View of Germans throwing hand grenades from trenches.

1674. **Oelker.** Tabellarische Zusammenstellung in- und ausländischer Patente, betreffend Hand- und Gewehrgranaten und dgl. (Zeitschrift für das gesamte Schiess- und Sprengstoffwesen, München, Jahrg. 10, 1915, p. 87-89, 99-100, 112-113.) VOA

1675. **Pollen, A. H.** The "L. S. D." of the submarine blockade. illus. (Illustrated London news, London, v. 146, 1915, p. 374.) * DA

Illustration and description of the "Daylight torpedo-boat," a small automatic submarine torpedo.

1676. **Polster.** Hand- und Gewehrgranaten. illus. (Verein deutscher Ingenieure, Zeitschrift, Berlin, Bd. 59, 1915, p. 447-448.) VDA

1677. — **Minen- und Bombenwerfer** Frankreichs. illus. (Kriegstechnische Zeitschrift, Berlin, Jahrg. 18, 1915, p. 153-157.) VWA

1678. **Precautions** against incendiary bombs. illus. (Oil and colour trades journal, London, v. 47, 1915, p. 1948.) VOP

1679. **Protection** of battleships from submarine attack. illus. (Illustrated London news, London, v. 146, 1915, p. 34, 53.) * DA

1680. **The Recrudescence** of siege warfare. (Illustrated London news, London, v. 146, 1915, p. 204.) * DA

Descriptions of various types of the German Minnenwerfer.

1681. **The Revival** of the hand-grenade in trench warfare: types and methods, French, British, and German. illus. (Illustrated London news, London, v. 146, 1915, p. 790-791.) * DA

1682. **Savorgnan di Brazzà, Francesco.** Attacchi e battaglie aeree. (In his: La guerra nel cielo. Milano, 1915. 4°. p. 198-226.) VDY

1683. **Sinker** of the "Bouvet," "Irresistible" and "Ocean." illus. (Illustrated London news, London, v. 146, 1915, p. 461.) * DA

Illustrations and description of the Leon torpedo-mine, invented by Capt. Karl Oskar Leon.

1684. **Sinking** of the "Lusitania." illus. (Illustrated London news, London, v. 146, 1915, p. 630-636.) * DA

Valuable series of photographs and sketches.

1685. **Sunk** by an enemy's torpedo: a steamer going down. illus. (Illustrated London news, London, v. 147, 1915, p. 260-261.) * DA

Account of the sinking of the *Carthage* and *Arabic*.

1686. **Thomas, Tom R.** Gyroscopic applications, with demonstrations. (Liverpool Engineering Society, Transactions, Liverpool, v. 36, 1915, p. 99-118.) VDA

Discussion, p. 120-124.

The steering of torpedoes, p. 110-112.

1687. **Throwing** grenade bouquets to the enemy. (Literary digest, New York, v. 50, 1915, p. 1026-1028.) * DA

1688. **Torpedoes** and torpedo craft, the development of a formidable naval arm. illus. (Navy and army, London, new series, v. 3, 1915, p. 100-102.) † VWZH

1689. "The **Unworthy** method of making war"; German poison gas. illus. (Illustrated London news, London, v. 147, 1915, p. 77.) * DA

1690. "Weeping" gas; poison gas and other enemy devices; trench warfare trophies. illus. (Illustrated London news, London, v. 147, 1915, n. 660-661.) * DA

Interesting series of illustrations.

1691. **What** to do in the case of further air or sea raids. illus. (Sphere, London, v. 60, 1915, p. 162.) * DA

1692. **Zeppelin** visit to London. illus. (Sphere, London, v. 61, 1915, p. 228-229, 232.) * DA

1916

1693. **Aerial** torpedo is built by western inventor. illus. (Popular mechanics magazine, New York, v. 26, 1916, p. 207.) **VFA**
1694. **Aerial** torpedo of great power. illus. (Popular mechanics magazine, New York, v. 25, 1916, p. 25.) **VFA**
Wirelessly controlled.
1695. **Automobile** torpedo control. (Army and navy register, Washington, v. 60, 1916, p. 9, 73.) † **VWA**
Invention of John Hays Hammond, jr. Brief note on proposed congressional legislation. For an account of test see p. 316.
1696. **Buttner**, Alexander. Throwing bombs from airships. How to aim the projectile to hit a given object. illus. (Scientific American supplement, New York, v. 81, 1916, p. 85.) **VA**
Translated from *Die Umschau*. With a historical note on the attempt at the siege of Venice in 1849 to drop bombs from an unguided balloon.
1697. **Dodge**, William W. Liquid fire and asphyxiating gases. (Army and navy register, Washington, v. 60, 1916, p. 8.) † **VWA**
Gives history of the use of Greek fire.
1698. **Dropping** aerial bombs thru a cone of light. (Electrical experimenter, New York, v. 4, 1916, p. 86.) **VGA**
1699. **Du Verseau**, pseud. Un sous-marin allemand poseur de mines pêché par les Anglais. illus. (La nature, Paris, année 44, semestre 2, 1916, p. 169-172.) **OA**
1700. **Eliphalet** Bliss. (National cyclopaedia of American biography, New York, v. 15, 1916, p. 20.) * **R-AGZ**
Manufacturer of the Bliss-Leavitt torpedo.
1701. **Fautleroy**, A. M. Grenades. (United States naval medical bulletin, Washington, v. 10, 1916, p. 46-48.) **WSR**
1702. **Fighting** with liquid fire. (Literary digest, New York, v. 52, 1916, p. 924-925.) * **DA**
Gives description of the effect of the "Flammenwerfer." Refers to the story by H. G. Wells giving "nightmarish" story of the Martians attacking England, which has become a fact.
1703. The **Finned** bomb of trench warfare: makers of air-torpedoes. illus. (Illustrated London news, London, v. 148, 1916, p. 404-406.) * **DA**
1704. **Firing** a torpedo from the deck of an American destroyer and loading a torpedo on the submarine "G-2." illus. (Popular mechanics magazine, New York, v. 25, 1916, p. 90-91.) **VFA**
Interesting illustrations.
1705. **Frank** McDowell. (National cyclopaedia of American biography, New York, v. 15, 1916, p. 20-21.) * **R-AGZ**
Notes on the Bliss-Leavitt torpedo.
1706. The **Greek** fire of the Germans. (Illustrated London news, London, v. 149, 1916, p. 168.) * **DA**
Notes on history.
1707. **Grenades**, rifle and hand. illus. (Scientific American supplement, New York, v. 81, 1916, p. 84.) **VA**
Illustrations of various grenades used at the front.
1708. **Guns** and flame projectors: battle spoil on the Somme front. illus. (Illustrated London news, London, v. 149, 1916, p. 795.) * **DA**
Description of a German Flammenwerfer.
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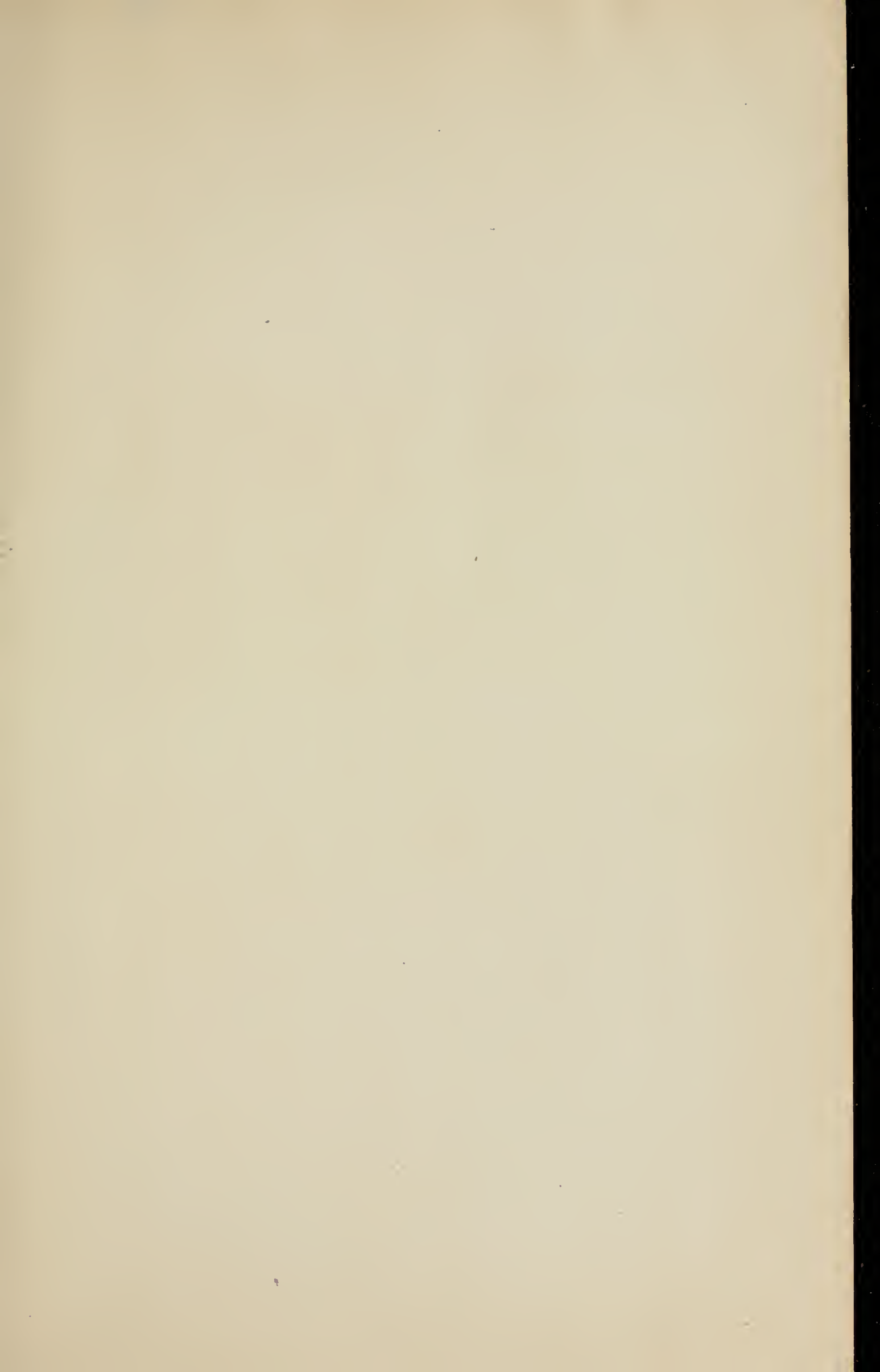
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